



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,096	09/21/2001	Seiji Kitayama	100794-00073 (FUJY 19.019	5074
26304	7590	02/07/2006	EXAMINER WONG, WARNER	
KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			ART UNIT 2668	PAPER NUMBER

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/960,096		KITAYAMA, SEIJI	
	Examiner		Art Unit	
	Warner Wong		2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7-11 and 15 is/are rejected.
- 7) ☐ Claim(s) 6,12-14 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 4-5, 7-11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorshe (5,355,362) in view of Eckley (4,740,963).

Regarding claim 1, Gorshe ('362) discloses a digital loop carrier system comprising:

an integrated access device side terminating unit (fig. 3, Channel Unit Group #31) terminating a transmission signal sent from an integrated access device (IAD) accommodating as a subscriber of a telephone or ISDN (fig. 3, #31, which comprises #310-313; col. 4, lines 60-62, col. 7, lines 9-10 for telephone & ISDN support) and implementing a TR-008 interface (col. 4, lines 65-68);

a unit performing interface conversion of the demultiplexed DS0 signal from TR-008 to TR-303 (col. 4, lines 65-68);

a TR-303 RDT unit based on TR-303 and having a plurality of subscriber ports (fig. 1, RDT & subscribers) for sending the interface-converted DS0 signal (col. 3, lines 44-47, col. 4, lines 65-68 & col. 6, lines 29-31, where TR-008 based DS0 are processed and output to TR-303 based DS0) to a switch implementing a TR-303 interface (col. 2,

Art Unit: 2668

lines 66-68 & col. 3, lines 1-2 where the RDT interface to the local digital switch using TR-303).

In view of claim 1, Gorshe lacks what Eckley describe:

a demultiplexing unit demultiplexing the terminated transmission signal into DS0 signals (fig. 1, Remote User Unit #11a; fig. 2, demultiplexer #49; col. 3, lines 59-62, where the remote user interface with telephones and other medium and low speed digital data signals; col. 5, lines 31-35 & 60-62, where the demultiplexer demultiplexes the telephone and the other medium and low speed digital data signals to DS0, as also indicated on col. 7, lines 40-42) for the purpose of transmitting and receiving both voice and digital data signals without any undue distortion to the voice signal and without any undue limits on digital data rates.

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to demultiplex the terminated transmission signals of telephone and digital data signals to DS0 as in Eckley for the system of Gorshe. The motivation is that it provides transmission and reception of both voice and digital data signals without any undue distortion to the voice signal and without any undue limits on digital data rates.

Regarding claim 2, Gorshe further describes that the interface conversion unit performing interface conversion of DS0 signals from said switch from TR-303 to TR-008 (col. 4, lines 65-68 & col. 6, lines 29-31), and wherein said gateway digital loop further comprises a multiplexing unit multiplexing interface-converted DS0 signals (col. 3, lines 44-47, col. 4, lines 65-68 & col. 6, lines 29-31, where TR-303 based DS0 are processed

Art Unit: 2668

and output to TR-008 based DS0) and a unit (fig. 10, F5) to transmit the multiplexed DS0 signals to said integrated access device (fig. 3, CC&I unit #32).

Regarding claim 4 and 5, Gorshe ('362) describes the CCS Global & EOC unit (signaling converting unit) which processes (extracts and converts) DS0 signals between TR-008 and TR-303 (column 6, lines 29-42).

Regarding claim 6, Gorshe ('362) describes the element used in converting between TR-008 and TR/GR-303 signaling format (column 4, lines 64-68; column 6, lines 29-31).

Gorshe ('362) fails to describe the detail to conversion process from a 4-bit pattern at 3 milliseconds (TR/GR-303) to two 2-bit patterns, each at 1.5 milliseconds (TR-008).

However, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to create a conversion process which conforms to standardized formats of TR-008 and TR/GR-303.

Regarding claim 7, Gorshe ('362) describes the CCS Global & EOC unit (signaling converting unit) which processes DS0s in accordance with their TR-008 or TR-303 line interface and signaling (column 6, lines 29-42).

Regarding Claim 8, it explains GR-303 call control aspects. Gorshe ('362) supports GR-303, including its call control (column 5, lines 24-30).

Regarding claim 9, Gorshe ('362) includes a DS1 and VT overhead processing unit (ISDN overhead converting unit) for handling (extracts) the sub-DS1 (DS0) ISDN-BRI, which includes the ISDN D channel (column 7 lines 7-18).

Art Unit: 2668

Regarding claims 10-11, Gorshe ('362) includes a CCS global & EOC processing unit which processes (extracts and converts) the ISDN-BRI into either TR-303 or TR-008 formatting (column 6, lines 29-40).

Regarding claim 15, Gorshe ('362) supports TR-303, which specify the functionality of cross-connects on the DS0 level (column 3, lines 3-11).

Allowable Subject Matter

2. Claims 6, 12-14 and 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

3. Applicant's arguments with respect to claims 1-2, 4-11, 15 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Baydar (6,049,550).

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2668

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

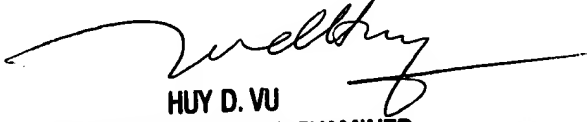
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 5:30AM - 2:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong
Examiner
Art Unit 2668

WW


HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600